

**Docket No. 14-CRB-0010-CD (2010-13)**

February 12, 2018

Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.

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In the Matter of

Distribution of the

2010, 2011, 2012, and 2013

Cable Royalty Funds

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Docket No. 14-CRB-0010-CD (2010-13)

AMENDED AND CORRECTED WRITTEN REBUTTAL STATEMENT  
REGARDING ALLOCATION METHODOLOGIES  
OF PROGRAM SUPPLIERS

Pursuant to 37 C.F.R. § 351.4(c) and the Copyright Royalty Judges’ (“Judges”) January 26, 2018 *Order Continuing Hearing And Permitting Amended Written Rebuttal Statements, Denying Other Motions, And Reserving Ruling On Other Requests* (“January 26 Order”), the Motion Picture Association of America, Inc. (“MPAA”), its member companies and other producers and/or syndicators of syndicated movies, series, specials, and non-team sports broadcast by television stations (“Program Suppliers”),<sup>1</sup> hereby amends and corrects its Written Rebuttal Statement Regarding Allocation Methodologies (“WRS-A”) as set forth herein. Specifically, Program Suppliers are amending the Written Rebuttal Testimony of Martin R. Frankel, Ph.D. (“Frankel Amended WRT”) and the Written Rebuttal Testimony of Jeffrey A. Stec, Ph.D. (“Stec Amended WRT”), and

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<sup>1</sup> A listing of MPAA-represented Program Suppliers who submitted royalty claims for the 2010-13 cable royalty years was included as a part of MPAA’s January 21, 2015 and July 6, 2015 Petitions to Participate filed in connection with this consolidated proceeding.

correcting the Written Rebuttal Testimony of Sue Ann R. Hamilton (“Hamilton Corrected WRT”), all three of which were included in Program Suppliers’ WRS-A filed on September 15, 2017. Other than the Written Rebuttal Testimony of Jeffrey S. Gray, Ph.D., which Program Suppliers corrected on November 3, 2017 and January 22, 2018, all other aspects of Program Suppliers’ WRS-A filed on September 15, 2017 remain unchanged.<sup>2</sup>

#### **I. PROGRAM SUPPLIERS WRS-A AMENDMENT**

Program Suppliers amend their WRS-A by submitting the Frankel Amended WRT and the Stec Amended WRT. Exhibit A to this pleading contains a complete copy of the Frankel Amended WRT, and Exhibit B contains a redline comparison that identifies with specificity the changes between Dr. Frankel’s original Written Rebuttal Testimony and the Frankel Amended WRT. Exhibit C to this pleading contains a complete copy of the Stec Amended WRT, and Exhibit D to this pleading contains a redline comparison that identifies with specificity the changes between Dr. Stec’s original Written Rebuttal Testimony and the Stec Amended WRT.

The changes in both the Frankel Amended WRT and the Stec Amended WRT are based upon new information that Program Suppliers received in discovery in this proceeding from the Joint Sports Claimants (“JSC”) in response to the Judges’ January 17, 2018 *Order Granting Program Suppliers’ Motion To Compel Unredacted Documents*

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<sup>2</sup> The Judges’ regulations state that a party amending a Written Direct Statement “may file either the amended portions of the written direct statement or submit complete new copies at its option.” See 37 C.F.R. § 351.4(c). Program Suppliers assume the same regulations would apply to Amended Written Rebuttal Statements, and are therefore electing to only file the amended portions of its Amended WRS-A.

*And Data From The Joint Sports Claimants.* Specifically, Dr. Frankel discusses his analysis of the unredacted Bortz survey information that JSC produced to Program Suppliers in response to the January 17 Order and identifies three problems with the Bortz survey's sampling and estimation procedures that are now apparent in light of JSC's unredacted discovery production. Dr. Frankel also presents revised weighted estimates and standard errors for the Bortz survey which correct the issues he identified. Dr. Stec performs a series of analyses to test the reliability and validity of the Bortz survey. Using the unredacted Bortz survey information, Dr. Stec (1) tests the consistency of the Bortz survey results over time by comparing Bortz survey responses by the same cable system in multiple royalty years, and (2) compares responses by the same cable system to both the Bortz survey and the Horowitz survey in the same royalty year. Based on his analysis of the unredacted Bortz data, Dr. Stec finds that the Bortz survey is neither reliable nor valid. To ensure the confidentiality of the restricted unredacted Bortz information produced by JSC, Program Suppliers have designated the Stec Amended WRT as "Restricted," subject to the Judges' March 31, 2016 *Protective Order* issued in this proceeding.

## **II. PROGRAM SUPPLIERS' WRS-A CORRECTION**

Separately, Program Suppliers are also correcting their WRS-A to update a footnote 2 on page 9 of the Written Rebuttal Testimony of Sue Ann R. Hamilton, which includes percentages from the Amended And Corrected Written Direct Testimony of Jeffrey S. Gray, Ph.D. that were corrected by Dr. Gray on January 22, 2018. Exhibit E to this pleading contains a corrected, clean copy of page 9 of the Hamilton Corrected WRT

with the word “CORRECTED” noted in the top right-hand corner, and Exhibit F contains a redline comparison that identifies the particular corrections to footnote 2, on page 9, with specificity. Program Suppliers request that the Judges and all the Allocation Phase Parties replace page 9 of Ms. Hamilton’s September 15, 2017 Written Rebuttal Testimony with the corrected page 9 that appears in Exhibit E. Program Suppliers’ exhibit binders prepared for the February 14, 2018 hearing will reflect this correction.

Respectfully submitted,

*/s/ Gregory O. Olaniran*

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# **EXHIBIT A**

**Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

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**In the Matter of**

**Distribution of the**

**2010, 2011, 2012, and 2013  
Cable Royalty Funds**

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**Docket No. 14-CRB-0010-CD (2010-13)**

**REBUTTAL TESTIMONY OF  
MARTIN R. FRANKEL, PH.D.**

**SEPTEMBER 15, 2017**

**AMENDED FEBRUARY 12, 2018**

## **AMENDED REBUTTAL TESTIMONY OF MARTIN R. FRANKEL, PH.D.**

### **A. BACKGROUND**

My name is Martin R. Frankel. Until my retirement on August 24, 2017, I worked as a Professor of Statistics and Computer Information Systems at Baruch College, City University of New York. I held this position at various levels (Assistant, Associate, and Full Professor) for more than 30 years. I also held a professional appointment on the Graduate Faculty of the City University of New York. Upon my retirement from Baruch College, City University of New York, I was designated Professor Emeritus. I provided more detailed information about my education and experience, and a copy of my curriculum vitae, in the Written Direct Testimony that I submitted in this proceeding on December 22, 2016, as a part of Program Suppliers' Written Direct Statement. That experience includes my professional activities, including my past work as Chair of the Committee on Standards for the American Association for Public Opinion Research ("AAPOR"), and describes my prior expert testimonies before state and federal courts and administrative agencies, including the Nuclear Regulatory Commission ("NRC") and the Interstate Commerce Commission ("ICC"), addressing statistical sampling, survey sampling, and interpretation of statistical evidence related to surveys. Attached hereto as Appendix A is an updated copy of my curriculum vitae. My Written Direct Testimony in this proceeding also explains the sample selection, estimation, and standard error calculation work that I performed in connection with the cable operator surveys that Program Suppliers commissioned for this proceeding, which were conducted by Horowitz Research, Inc. ("Horowitz").

### **B. PURPOSE OF REBUTTAL TESTIMONY**

Program Suppliers asked me to review the Written Direct Testimony of James M. Trautman and the attached report by Bortz Media & Sports Group, Inc. ("Bortz") entitled *Cable Operator Valuation Of Distant Signal Non-Network Programming: 2010-13* ("Bortz Report"),



as well as the discovery documents related to Mr. Trautman's testimony. Several of these discovery documents were recently produced by the Joint Sports Claimants ("JSC") pursuant to the Judges' January 17, 2018 *Order Granting Program Suppliers' Motion To Compel Unredacted Documents And Data From The Joint Sports Claimants* ("January 17, 2018 Order") which granted Program Suppliers' April 27, 2017 motion and November 21, 2017 renewed motion to compel unredacted documents and data related to the Bortz survey from JSC.<sup>1</sup> In light of JSC's recent production of unredacted documents and data related to the Bortz survey, Program Suppliers asked me to provide my professional opinion regarding the validity of the sampling and estimation procedures undertaken by Mr. Trautman and Bortz to produce the weighted survey results and associated confidence intervals set forth in the Bortz Report.

I replicated the weighted Bortz survey results and its estimates using the newly-produced, unredacted Bortz survey discovery information. I have nonetheless identified at least three problems with the manner in which Mr. Trautman and Bortz performed their sampling and estimation for the Bortz survey and how those two tasks impact the weighted survey results included in the Bortz Report. *First*, Bortz used a sample frame which included Form 3 cable systems that did not carry at least one distant signal when the correct sampling frame (*i.e.*, Form 3 cable systems that carried at least one distant signal) was available. *Second*, Bortz did not make an appropriate correction for this overinclusion of Form 3 cable systems without distant signals when producing its weighted estimates. *Third*, Bortz disadvantaged cable systems that carried only PBS stations, Canadian stations, or PBS and Canadian stations as distant signals by

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<sup>1</sup> See Program Suppliers' Reply In Support of Renewed Motion to Compel Production of Unredacted Documents and Data from the Joint Sports Claimants (December 13, 2017); Program Suppliers' Renewed Motion to Compel Production of Unredacted Documents and Data from the Joint Sports Claimants (November 21, 2017); Program Suppliers' Reply In Support Of Motion To Compel Production Of Unredacted Documents And Data From The Joint Sports Claimants (May 18, 2017); Program Suppliers' Motion To Compel Production Of Unredacted Documents And Data From The Joint Sports Claimants (April 27, 2017).

arbitrarily excluding these systems and affording them no value when producing its weighted estimates. Such an arbitrary exclusion had a substantial impact on all of the Bortz survey estimates, as demonstrated by my below estimation.

### **C. PROBLEMS WITH WEIGHTED BORTZ SURVEY RESULTS.**

The Bortz Report indicates that the 2010-13 Bortz cable operator surveys are based on a sample of 2010-13 Form 3 cable systems. In order to select its sample, Bortz obtained an initial sample frame that consisted of the “universe level royalty data (*i.e.*, the royalty amounts paid by all Form 3 systems) from records compiled by the Copyright Office based on [Statements of Account] filed by cable systems for the first accounting period of each survey year.”<sup>2</sup> Bortz then stratified the sample frame into four strata of royalty classes, one of which required that all systems within that stratum be included in the sample (*i.e.*, the largest royalty payers).<sup>3</sup> Sample systems were then randomly selected from the remaining three strata in accordance with the sample size requirements determined for each stratum.<sup>4</sup> After randomly selecting its sample systems from each stratum, Bortz eliminated systems that carried no distant signals, systems carrying PBS-only, Canadian-only, and PBS- and Canadian-only signals, and created a final eligible sample for each of the 2010-13 royalty years.<sup>5</sup>

#### **1. Incorrect Sample Frame.**

As set forth above, the Bortz Report describes the stratified random sampling process it used to select each year’s sample of cable systems and the estimation process implemented by Bortz to produce the weighted Bortz survey results and confidence intervals for each year. In order to replicate the weighted Bortz survey results and its estimates, I analyzed the new,

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<sup>2</sup> Bortz Report at 11.

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at 13-14.

unredacted JSC discovery materials referenced above in addition to JSC's original discovery materials, and identified the universe of Form 3 cable systems from which each sample of systems was randomly selected for each of the 2010-13 cable royalty years.

Once I identified the universe of Form 3 cable systems for each cable royalty year at issue in this proceeding, Cable Data Corporation ("CDC") provided me with information separating the different cable systems in the Bortz survey universe each year into the following five categories: (1) systems with no distant signals; (2) systems carrying only a distant PBS signal; (3) systems carrying only a Canadian distant signal; (4) systems carrying only PBS and Canadian distant signals; and (5) systems with distant signals and any mix not in any of the foregoing groups 1 through 4. In addition, Berkley Research Group provided me with the following information from the newly produced, unredacted Bortz data for the particular systems in the Bortz survey universe that were actually surveyed by Bortz each year: (1) Strata; (2) Royalties; (3) System Name; (4) City; (5) State Subscribers; (6) Remit #; and (7) each cable system's responses to the Bortz constant sum valuation question.

Using all of this information, I was able to successfully replicate the weighted Bortz survey results and estimates provided in the Bortz Report, as shown in Table 1 on the following page.

**TABLE 1 – REPLICATED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES, 2010-13**

	2010	2011	2012	2013
Live professional and college team sports	40.9%	36.4%	37.9%	37.7%
News and public affairs programs	18.7%	18.3%	22.8%	22.7%
Movies	15.9%	18.6%	15.3%	15.5%
Syndicated shows, series and specials	16.0%	17.4%	13.5%	11.8%
PBS and all other programming on non-commercial signals	4.4%	4.7%	5.1%	6.2%
Devotional and religious programming	4.0%	4.5%	4.8%	5.1%
All programming on Canadian signals	<u>0.1%</u>	<u>0.2%</u>	<u>0.6%</u>	<u>1.2%</u>
Total	100.0%	100.0%	100.0%	100.0%

\*Columns may not add to total due to rounding. *See also* Bortz Report, Table IV-1, at p. 42.

It is clear from my analysis that, for each year, Bortz used a sample frame which included Form 3 cable systems that did *not* carry at least one distant signal. Instead, Bortz should have used, for each year, a sampling frame of only Form 3 cable systems that retransmitted at least one distant signal.

2. Improper Inclusion Of Royalties Attributable Cable Systems Carrying Distant Signals.

Having already improperly included systems carrying no distant signals in its sampling frame for each year, Bortz then improperly included royalties attributable to those systems in its weighting and estimation calculations. Correcting for this problem by excluding the royalties attributable to Form 3 cable systems carrying no distant signals from Bortz’s weighting and estimation calculations changes the weighted Bortz survey results and its estimates for each of the 2010-13 cable royalty years.

3. Improper Exclusion of PBS-Only, Canadian-Only, And PBS/Canadian-Only Systems From Bortz Sample.

Bortz also excluded from its original sample cable systems that carried only PBS stations, only Canadian stations, and only PBS and Canadian stations as distant signals, effectively according those systems zero weight in its estimates. Arbitrarily excluding these distant signals had a substantial impact on all of the estimates. Tables 2-5 below show the resulting weighted estimate of percentages and the associated standard errors<sup>6</sup> assigned to the various Bortz programming categories for royalty years 2010-2013 when corrected to include (1) only the Form 3 cable systems that retransmitted at least one distant signal during each royalty year in question; and (2) cable systems carrying only PBS, only Canadian, and only PBS and Canadian stations on a distant basis.

**TABLE 2 – 2010 CORRECTED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES**

	2010	Standard Error
Live professional and college team sports	34.1%	1.64
News and public affairs programs	15.5%	0.96
Movies	13.2%	0.65
Syndicated shows, series and specials	13.4%	0.79
PBS and all other programming on non-commercial signals	15.8%	1.57
Devotional and religious programming	3.2%	0.29
All programming on Canadian signals	4.8%	2.50

\*Columns may not add to total due to rounding.

<sup>6</sup> I calculated standard errors for the Horowitz survey results, and have done so for the Bortz survey results to provide a better bases for comparing the two survey results. See Written Direct Testimony of Martin R. Frankel, Ph.D., Docket No. 14-CRB-0010-CD (2010-13), at 7-9, Appendix B (filed December 22, 2016).

**TABLE 3 – 2011 CORRECTED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES**

	2011	Standard Error
Live professional and college team sports	32.2%	1.03
News and public affairs programs	15.9%	0.81
Movies	16.5%	0.68
Syndicated shows, series and specials	15.3%	0.75
PBS and all other programming on non-commercial signals	16.0%	1.73
Devotional and religious programming	3.9%	0.30
All programming on Canadian signals	0.2%	0.07

\*Columns may not add to total due to rounding.

**TABLE 4 – 2012 CORRECTED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES**

	2012	Standard Error
Live professional and college team sports	34.9%	1.44
News and public affairs programs	21.0%	0.83
Movies	14.1%	0.66
Syndicated shows, series and specials	12.3%	0.50
PBS and all other programming on non-commercial signals	11.3%	1.38
Devotional and religious programming	4.4%	0.29
All programming on Canadian signals	2.1%	1.04

\*Columns may not add to total due to rounding.

**TABLE 5 – 2013 CORRECTED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES**

	2013	Standard Error
Live professional and college team sports	33.6%	1.37
News and public affairs programs	20.1%	0.95
Movies	13.9%	0.70
Syndicated shows, series and specials	10.5%	0.63
PBS and all other programming on non-commercial signals	14.5%	2.10
Devotional and religious programming	4.5%	0.25
All programming on Canadian signals	2.9%	1.29

\*Columns may not add to total due to rounding.

Notably, unlike Bortz, in my sample selection work for the Horowitz survey I utilized the correct sampling frame, which was all Form 3 cable systems carrying at least one distant signal. Also, unlike Bortz, once Horowitz completed its survey of cable system operators, I used the survey responses to provide a weighted estimate of the percent dollar allocation that all cable systems would assign to the eight programming categories discussed in the Horowitz survey, and I did not arbitrarily exclude cable systems carrying only PBS, only Canadian, and only PBS and Canadian stations as distant signals when producing my estimates.<sup>7</sup> Accordingly, the Horowitz survey weighted results and the standard errors I produced associated with those weighted results do not suffer from the same problems that I identified in my analysis of the Bortz survey.

Furthermore, I do not mean to suggest by my replication and suggested corrections to the Bortz survey results that I support the Bortz survey as the basis for allocating the royalties at issue in the case. If the Judges choose to rely on an operator survey in this proceeding, it is my

<sup>7</sup> See Written Direct Testimony of Martin R. Frankel, Ph.D., Docket No. 14-CRB-0010-CD (2010-13), at 7, Appendix B (filed December 22, 2016).

opinion that the Horowitz survey presents a better approach based on some of its improvements to the Bortz survey.

#### **D. CONCLUSION**

While I was able to successfully replicate the weighted Bortz survey results and estimates provided in the Bortz Report, as discussed above, the Bortz Report suffers from three key problems; to wit: (1) Bortz used a sample frame which included Form 3 cable systems that did not carry at least one distant signal; (2) Bortz improperly included the royalties attributable to Form 3 systems that did not carry at least one distant signal in producing its weighted estimates; and (3) Bortz disadvantaged cable systems that carried PBS-only, Canadian-only, or PBS- and Canadian-only stations as distant signals by arbitrarily excluding these signals when producing its estimates. Correcting for these errors causes a substantial impact in the Bortz survey weighted results, and also impacts the standard errors associated with those results.

Notably, unlike Bortz, the weighting and estimation procedures I performed in connection with the Horowitz survey do not suffer from these same problems, as I used only the universe of Form 3 cable systems that carried at least one distant signal, and I did not exclude cable systems that carried only PBS stations, only Canadian stations, or only PBS and Canadian stations as distant signals.

I thank the Judges for the opportunity to provide testimony in this proceeding, and I hope my analyses are helpful to the Judges.



**Declaration of Martin R. Frankel**

I declare under penalty of perjury that the foregoing testimony is true and correct, and of my personal knowledge.

Executed on February 12, 2018.

A handwritten signature in black ink, appearing to read 'M. R. Frankel', written over a horizontal line.

Martin R. Frankel, Ph.D.

**APPENDIX A**  
**CURRICULUM VITAE**

**MARTIN RICHARD FRANKEL**

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**EDUCATION:** A. B. (Mathematics)  
University of North Carolina, 1965  
M. A. (Mathematical Statistics)  
The University of Michigan, 1967  
Ph. D. (Mathematical Sociology)  
The University of Michigan, 1971

**PROFESSIONAL EXPERIENCE:**

PRESENT: Professor Emeritus, Statistics and Information Systems, Baruch College, City University of New York.

2017-1980: Professor of Statistics and Computer Information Systems, Baruch College, City University of New York. (1980-present). Deputy Chair (1994-2001).

1975-79: Associate Professor of Statistics, Baruch College, City University of New York.

1973-74: Assistant Professor of Statistics, Graduate School of Business, University of Chicago.

- 1971-72: Assistant Professor of Statistics, Baruch College, City University of New York.
- 1965-70: Research Associate, Survey Research Center, Institute for Social Research, the University of Michigan. (Research Assistant 65-68).
- 1973-1996: Senior Statistical Scientist, NORC, The University of Chicago
- 1996-2012: Senior Statistical Scientist, ABT Associates, Cambridge, MA.

## **PUBLICATIONS:**

### **BOOKS:**

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- "Repatriation and Disability: A Community Survey of Health, Mental Health, and Social Functioning of the Khmer Residents of Site Two. Volume 1 Khmer Adults," Working Document Harvard Program in Refugee Trauma, Harvard School of Public Health and World Federation of Mental Health, 1992 (co-author).

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- "Benchmarking Readership Levels in the New Study of Media and Markets to the Survey of American Readership," Worldwide Readership Research Symposium VII (Berlin), 1995. pp. 329-332. (lead author) Winner of Best Technical Paper Prize.
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**PROFESSIONAL HONORS:**

- Harry O'Neill Outstanding Achievement Award, NYAPPOR, 2013
- Warren J. Mitofsky Innovators Award, American Association for Public Opinion Research, 2011
- Elected to Hall of Fame, Market Research Council, 2007
- Elected to Membership, International Statistical Institute, 1980
- Fellow, American Statistical Association, 1978

**SELECTED PROFESSIONAL ACTIVITIES:**

- Chair, Committee on Standards, American Association for Public Opinion Research, (1988-89).
- Chair, Research Quality Council, Advertising Research Foundation, 1988-present.
- Chairman, Section on Survey Research Methods, American Statistical Association (1975-1976).
- Associate Editor, Journal of the American Statistical Association. (1973-1981).
- Member of Editorial Board, Public Opinion Quarterly (1977-1983, 1986-1990).
- Member of Editorial Board, Sociological Methods and Research (1979-1983).
- Chairman, American Statistical Association Advisory Committee to the U. S. Census (1981), Member (1975-1981).
- Member of Editorial Board, Encyclopedia of Statistical Sciences, John Wiley & Sons, (1980-1985).
- Member, Panel on Occupational Safety and Health Statistics, Committee on National Statistics, National Research Council, National Academy of Sciences. (1985-1987)

- Member, Panel on the Functionality and Usability of Data from the American Community Survey, Committee on National Statistics, National Research Council, National Academy of Sciences. (2004-2005)
- Member, External Advisory Committee, Program in Survey Methodology, The University of Michigan (2002-2004).
- Fellow, American Statistical Association Fellow, (1978)
- Fellow, International Statistical Institute (elected 1980)
- President, Market Research Council, 1995
- Biographee: Who's Who in America
- Biographee: American Men and Women of Science
- Hall of Fame, 2007, Market Research Council

#### **SELECTED APPEARANCES INVOLVING THE PRESENTATION AND INTERPRETATION OF STATISTICAL EVIDENCE FOR LEGAL AND ADMINISTRATIVE PROCEEDINGS**

- SUPREME COURT OF THE STATE OF NEW YORK: Introduced the use of statistical sampling for the determination of the weight of narcotics. Accepted by the Court and Jury. (1997)
- FEDERAL COURT (IOWA): Expert witness survey methods for U.S. Department of Justice, Anti-Trust Division (1995)
- FEDERAL COURT (DETROIT): Expert witness survey sampling and methods for A.C. Nielsen Company (1993)
- FEDERAL COURT (NEW YORK) Expert witness sampling and estimation. J Lefcourt (1985)
- NUCLEAR REGULATORY COMMISSION: Expert witness statistical sampling and quality for Commonwealth Edison Company (License hearing for Byrom and Braidwood Nuclear Power Stations. (1980-1984)
- INTERSTATE COMMERCE COMMISSION. Expert witness statistical sampling and estimation on behalf of Union Pacific Railroad merger with Western and Missouri Pacific Railroads. (1975-6)

- FEDERAL COURT (ALABAMA): Expert witness in statistics and demography on behalf of Southern Poverty Law Center for redistricting of Alabama after 1970 Census. (1973-4)
- COPYRIGHT ARBITRATION ROYALTY PANEL: Expert witness on behalf of the Motion Picture Association of American, (1989, 2003, 2007)

# **EXHIBIT B**



**Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

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**In the Matter of**

**Distribution of the**

**2010, 2011, 2012, and 2013  
Cable Royalty Funds**

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**Docket No. 14-CRB-0010-CD (2010-13)**

**REBUTTAL TESTIMONY OF  
MARTIN R. FRANKEL, PH.D.**

**SEPTEMBER 15, 2017**

**AMENDED FEBRUARY 12, 2018**

**AMENDED REBUTTAL TESTIMONY OF MARTIN R. FRANKEL, PH.D.**

**A. BACKGROUND**

My name is Martin R. Frankel. Until my retirement on August 24, 2017, I worked as a Professor of Statistics and Computer Information Systems at Baruch College, City University of New York. I held this position at various levels (Assistant, Associate, and Full Professor) for more than 30 years. I also held a professional appointment on the Graduate Faculty of the City University of New York. Upon my retirement from Baruch College, City University of New York, I was designated Professor Emeritus. I provided more detailed information about my education and experience, and a copy of my curriculum vitae, in the Written Direct Testimony that I submitted in this proceeding on December 22, 2016, as a part of Program Suppliers' Written Direct Statement. That experience includes my professional activities, including my past work as Chair of the Committee on Standards for the American Association for Public Opinion Research ("AAPOR"), and describes my prior expert testimonies before state and federal courts and administrative agencies, including the Nuclear Regulatory Commission ("NRC") and the Interstate Commerce Commission ("ICC"), addressing statistical sampling, survey sampling, and interpretation of statistical evidence related to surveys. Attached hereto as Appendix A is an updated copy of my curriculum vitae. My Written Direct Testimony in this proceeding also explains the sample selection, estimation, and standard error calculation work that I performed in connection with the cable operator surveys that Program Suppliers commissioned for this proceeding, which were conducted by Horowitz Research, Inc. ("Horowitz").

**B. PURPOSE OF REBUTTAL TESTIMONY**

Program Suppliers asked me to review the Written Direct Testimony of James M. Trautman and the attached report by Bortz Media & Sports Group, Inc. ("Bortz") entitled *Cable Operator Valuation Of Distant Signal Non-Network Programming: 2010-13* ("Bortz Report"),

as well as the discovery documents related to Mr. Trautman's testimony. Several of these discovery documents were recently produced by the Joint Sports Claimants ("JSC") ~~related to Mr. Trautman's testimony, and~~ pursuant to the Judges' January 17, 2018 *Order Granting Program Suppliers' Motion To Compel Unredacted Documents And Data From The Joint Sports Claimants* ("January 17, 2018 Order") which granted Program Suppliers' April 27, 2017 motion and November 21, 2017 renewed motion to compel unredacted documents and data related to the Bortz survey from JSC.<sup>1</sup> In light of JSC's recent production of unredacted documents and data related to the Bortz survey, Program Suppliers asked me to provide my professional opinion regarding the validity of the sampling and estimation procedures undertaken by Mr. Trautman and Bortz to produce the weighted survey results and associated confidence intervals set forth in the Bortz Report.<sup>2</sup> ~~Unfortunately, as I explained in the declarations I submitted in connection with Program Suppliers' pending Motion To Compel Production Of Unredacted Documents And Data From JSC and the related Reply,<sup>3</sup> I am unable to replicate or test the weighted survey results or the confidence intervals included in the Bortz Report because JSC has chosen to redact and remove information from its discovery production that is necessary for me to perform my analyses. As a result, I am unable to replicate or test the weighted Bortz survey results or the Bortz confidence intervals, and I am unable to offer an opinion regarding their validity.~~

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<sup>1</sup> See Program Suppliers' Reply In Support of Renewed Motion to Compel Production of Unredacted Documents and Data from the Joint Sports Claimants (December 13, 2017); Program Suppliers' Renewed Motion to Compel Production of Unredacted Documents and Data from the Joint Sports Claimants (November 21, 2017); Program Suppliers' Reply In Support Of Motion To Compel Production Of Unredacted Documents And Data From The Joint Sports Claimants (May 18, 2017); Program Suppliers' Motion To Compel Production Of Unredacted Documents And Data From The Joint Sports Claimants (April 27, 2017).

<sup>2</sup> See Bortz Report at pp. 3 (Table I-1), 4 (Figure I-1), 41-42 (text and Table IV-1), 43 (Figure IV-1), 44 (Table IV-2), 45 (Table IV-3), 46 (Table IV-4), 47 (Table IV-5), and Appendix D, at pp. D-8-11.

<sup>3</sup> See Program Suppliers' Motion To Compel Production Of Unredacted Documents And Data From The Joint Sports Claimants at Exhibit A (Frankel Decl.) (April 27, 2017); Program Suppliers' Reply In Support Of Motion To Compel Production Of Unredacted Documents And Data From The Joint Sports Claimants at Exhibit A (Frankel Decl.) (May 18, 2017).

~~Moreover, given the nature of the redactions performed by Mr. Trautman and Bortz, it is my opinion that no competent statistician could perform an independent analysis of the weighted Bortz survey results or confidence intervals in order to test their reliability.~~

I replicated the weighted Bortz survey results and its estimates using the newly-produced, unredacted Bortz survey discovery information. I have nonetheless identified at least three problems with the manner in which Mr. Trautman and Bortz performed their sampling and estimation for the Bortz survey and how those two tasks impact the weighted survey results included in the Bortz Report. *First*, Bortz used a sample frame which included Form 3 cable systems that did not carry at least one distant signal when the correct sampling frame (*i.e.*, Form 3 cable systems that carried at least one distant signal) was available. *Second*, Bortz did not make an appropriate correction for this overinclusion of Form 3 cable systems without distant signals when producing its weighted estimates. *Third*, Bortz disadvantaged cable systems that carried only PBS stations, Canadian stations, or PBS and Canadian stations as distant signals by arbitrarily excluding these systems and affording them no value when producing its weighted estimates. Such an arbitrary exclusion had a substantial impact on all of the Bortz survey estimates, as demonstrated by my below estimation.

**C. ~~THE PROBLEMS WITH WEIGHTED BORTZ SURVEY RESULTS AND CONFIDENCE INTERVALS CANNOT BE REPLICATED OR TESTED USING THE DISCOVERY DOCUMENTS PRODUCED BY JSC.~~**

~~The Bortz Report describes the stratified random sampling process undertaken by Bortz to select each year's sample of cable systems to be surveyed~~The Bortz Report indicates that the 2010-13 Bortz cable operator surveys are based on a sample of 2010-13 Form 3 cable systems. In order to select its sample, Bortz obtained an initial sample frame that consisted of the "universe level royalty data (*i.e.*, the royalty amounts paid by all Form 3 systems) from records

compiled by the Copyright Office based on [Statements of Account] filed by cable systems for the first accounting period of each survey year.”<sup>4</sup> Bortz then stratified the sample frame into four strata of royalty classes, one of which required that all systems within that stratum be included in the sample (i.e., the largest royalty payers).<sup>5</sup> Sample systems were then randomly selected from the remaining three strata in accordance with the sample size requirements determined for each stratum.<sup>6</sup> After randomly selecting its sample systems from each stratum, Bortz eliminated systems that carried no distant signals, systems carrying PBS-only, Canadian-only, and PBS- and Canadian-only signals, and created a final eligible sample for each of the 2010-13 royalty years.<sup>7</sup>

1. Incorrect Sample Frame.

As set forth above, the Bortz Report describes the stratified random sampling process it used to select each year’s sample of cable systems and the estimation process implemented by Bortz to produce the weighted Bortz survey results and confidence intervals for each year.

~~Based on my review of the JSC discovery materials referenced above, it is clear that JSC has failed to produce all of the input data necessary for a competent statistician to replicate or test multiple bottom-line numbers reported in the Bortz Report. Specifically, JSC has failed to produce the input data required for me perform the statistical analyses necessary to evaluate the accuracy and reliability of the weighted survey results or the confidence intervals contained in the Bortz Report.~~In order to replicate the weighted Bortz survey results and its estimates, I analyzed the new, unredacted JSC discovery materials referenced above in addition to JSC’s

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<sup>4</sup> Bortz Report at 11.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.* at 13-14.

original discovery materials, and identified the universe of Form 3 cable systems from which each sample of systems was randomly selected for each of the 2010-13 cable royalty years.

JSC produced a set of ~~redacted~~ Bortz survey questionnaires (a representative example for the 2013 royalty year produced as JSC 00008168—JSC 00008172 is attached hereto as *Frankel Exhibit 1*)<sup>8</sup> and a set of ~~redacted~~ Bortz survey data entry spreadsheets (a representative excerpt reporting all of the Bortz survey responses to the constant sum valuation question for the 2013 royalty year produced as JSC 00008183 2013 Redacted.xlsx is attached hereto as *Frankel Exhibit 2*).<sup>9</sup> ~~The produced materials are redacted to remove input data regarding the royalties paid by each cable system, the sample stratum to which each cable system is assigned, and the number of each cable system's subscribers. Without these input data linked to the percentage allocations made by the Bortz survey respondents in each royalty year, I am unable to replicate or test the weighted survey results or confidence intervals set forth in the Bortz Report or perform other relevant analyses.~~

~~The exhibits attached to my testimony provide a helpful illustration of JSC's redactions and how they impede the replication and any meaningful statistical analysis of the weighted Bortz Survey results and confidence intervals set forth in the Bortz Report.~~

As Frankel Exhibit 1 shows, the Bortz survey questionnaires have been redacted to not only remove individual respondent information (such as the name of the individual being interviewed and their telephone number), but also information such as the royalties associated

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<sup>8</sup> ~~JSC produced the entire set of redacted questionnaires marked with bates stamped numbers JSC 00005097—JSC 00008172.~~

<sup>9</sup> ~~JSC produced the entire set of redacted Bortz survey data entry spreadsheets as Microsoft Excel files marked with bates stamped numbers JSC 00008183—JSC 00008186. Frankel Exhibit 2 is a printed excerpt of a native Microsoft Excel file produced as JSC 00008183 2013 Redacted.xlsx. Because this file was produced in a native format, the redacted information appears to have been removed from the file rather than obscured.~~

~~with the cable system, the number of subscribers associated with the cable system, and the particular sample stratum to which that system is assigned—input data that is necessary for statistical and other analyses of the survey results. See Frankel Exhibit 1 at 1. As Frankel Exhibit 2 shows, JSC has removed information identifying the royalties, number of subscribers, and the sample stratum to which each respondent system is assigned.~~

~~The missing information described in the foregoing paragraphs is necessary for meaningful analyses of the Bortz survey data. I cannot replicate or test the weighted Bortz survey results or the confidence intervals set forth in the Bortz Report without information identified above about each surveyed cable system, the corresponding sample stratum, and percentage allocations to the Bortz constant sum question. Also, I am unable to perform other relevant analyses that I may find appropriate. For example, besides replicating and testing the Bortz survey results, I may wish to analyze allocations tendencies of respondents within each stratum. I cannot perform such an exercise without the requested input data.~~

~~The significance of JSC's redactions cannot be understated. Only the weighted Bortz survey results can be projected to the universe of cable systems subject to the cable statutory license. In my experience, unweighted and weighted survey results can often differ substantially, and it is not reasonable to make an inference regarding the reliability of weighted survey results based on their similarity to unweighted survey results. Accordingly, it is critical that all input data underlying both the unweighted and weighted Bortz survey results be made available for independent statistical review and analyses. Moreover, I understand that, in the last litigated Phase I allocation proceeding before the Copyright Royalty Judges ("Judges"), the Judges relied on the Bortz confidence intervals as the basis for fashioning the royalty awards for several~~

claimant categories, including the Program Suppliers category.<sup>10</sup> The fact that these bottom-line numbers have received such significant consideration in a past proceeding underscores the necessity that they be subjected to independent statistical scrutiny.

Based on my experience, including both my past experience serving as an expert statistician evaluating surveys in other state, federal, and administrative contexts, and my experience working with AAPOR, I have never seen input data necessary for independent verification of weighted survey results and confidence intervals redacted from discovery production related to a survey, as JSC has done in this proceeding. Indeed, AAPOR's Code Of Professional Ethics requires its members to adhere to standards of requiring access to survey datasets to encourage transparency and replicability of survey results, and permits de-identification only to "protect the privacy of individual respondents."<sup>11</sup> In my opinion, JSC's redactions to the Bortz input data exceeds what is legitimately reasonable to protect the privacy of individual Bortz survey respondents under this standard.

I understand that JSC has offered to produce unredacted copies of the Bortz survey questionnaires and data entry spreadsheets to Cable Data Corporation ("CDC") and has proposed having opposing parties request analyses or reports related to the Bortz data from CDC, as JSC did in the 2004-2005 Cable Phase I proceeding. I am familiar with CDC's operations and expertise, having used CDC data in connection with my own sample selection and estimation work related to the Horowitz survey in this proceeding. In my professional opinion, it would not be appropriate to have CDC serve in the role suggested by JSC.

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<sup>10</sup> See 75 Fed. Reg. 57063, 57068 and 57070 (September 17, 2010).

<sup>11</sup> See AAPOR Code Of Professional Ethics at p. 7 (Section II.E.).



~~First, CDC lacks the statistical expertise necessary to evaluate the unredacted Bortz input data and perform the statistical analysis necessary to test the reliability of the weighted Bortz survey results and confidence intervals. Thus, it would be unreasonable for Program Suppliers (or the Judges) to rely on CDC for such an analysis in this proceeding. Second, as an expert statistician, I do not consider it appropriate or reasonable for me to rely on statistical analyses performed by a non-expert third party such as CDC as the basis for any of my conclusions regarding the reliability of the Bortz survey, or the reasonableness of any of the computations underlying the weighted Bortz survey results or the confidence intervals contained in the Bortz Report.~~

~~JSC has suggested that I could utilize CDC to perform non-statistical analyses by preparing so-called “fill in the blank” statistical programs and providing them to CDC.<sup>12</sup> However, not only would such a process deprive me of any means to check the accuracy of the “fill in the blanks” data entry work done by CDC (and thus confirm the accuracy of any so-called “bottom line results” that CDC provided me in response to my queries), it would unnecessarily permit JSC to control the manner and form in which I could conduct my analysis, thereby compromising my ability to perform a complete and independent statistical review of the Bortz survey results and render my own expert opinion regarding their validity. JSC’s proposal is also inefficient and burdensome, as it would force me to be subject to CDC’s availability to implement and turnaround each of my Bortz-related requests. Accordingly, JSC’s proposal compromises my ability to verify and test the reliability of the Bortz survey results.~~

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<sup>12</sup> See JSC Opposition to Program Suppliers’ Motion To Compel at Exhibit C (Wecker Decl.) at ¶¶ 7-8; see also Opposition Exhibit B (Mathiowetz Decl.) at ¶ 12.

Once I identified the universe of Form 3 cable systems for each cable royalty year at issue in this proceeding, Cable Data Corporation (“CDC”) provided me with information separating the different cable systems in the Bortz survey universe each year into the following five categories: (1) systems with no distant signals; (2) systems carrying only a distant PBS signal; (3) systems carrying only a Canadian distant signal; (4) systems carrying only PBS and Canadian distant signals; and (5) systems with distant signals and any mix not in any of the foregoing groups 1 through 4. In addition, Berkley Research Group provided me with the following information from the newly produced, unredacted Bortz data for the particular systems in the Bortz survey universe that were actually surveyed by Bortz each year: (1) Strata; (2) Royalties; (3) System Name; (4) City; (5) State Subscribers; (6) Remit #; and (7) each cable system’s responses to the Bortz constant sum valuation question.

Using all of this information, I was able to successfully replicate the weighted Bortz survey results and estimates provided in the Bortz Report, as shown in Table 1 on the following page.

**TABLE 1 – REPLICATED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES, 2010-13**

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
<u>Live professional and college team sports</u>	<u>40.9%</u>	<u>36.4%</u>	<u>37.9%</u>	<u>37.7%</u>
<u>News and public affairs programs</u>	<u>18.7%</u>	<u>18.3%</u>	<u>22.8%</u>	<u>22.7%</u>
<u>Movies</u>	<u>15.9%</u>	<u>18.6%</u>	<u>15.3%</u>	<u>15.5%</u>
<u>Syndicated shows, series and specials</u>	<u>16.0%</u>	<u>17.4%</u>	<u>13.5%</u>	<u>11.8%</u>
<u>PBS and all other programming on non-commercial signals</u>	<u>4.4%</u>	<u>4.7%</u>	<u>5.1%</u>	<u>6.2%</u>
<u>Devotional and religious programming</u>	<u>4.0%</u>	<u>4.5%</u>	<u>4.8%</u>	<u>5.1%</u>
<u>All programming on Canadian signals</u>	<u>0.1%</u>	<u>0.2%</u>	<u>0.6%</u>	<u>1.2%</u>
<u>Total</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

\*Columns may not add to total due to rounding. See also Bortz Report, Table IV-1, at p. 42.

It is clear from my analysis that, for each year, Bortz used a sample frame which included Form 3 cable systems that did not carry at least one distant signal. Instead, Bortz should have used, for each year, a sampling frame of only Form 3 cable systems that retransmitted at least one distant signal.

2. Improper Inclusion Of Royalties Attributable Cable Systems Carrying Distant Signals.

Having already improperly included systems carrying no distant signals in its sampling frame for each year, Bortz then improperly included royalties attributable to those systems in its weighting and estimation calculations. Correcting for this problem by excluding the royalties attributable to Form 3 cable systems carrying no distant signals from Bortz's weighting and estimation calculations changes the weighted Bortz survey results and its estimates for each of the 2010-13 cable royalty years.

3. Improper Exclusion of PBS-Only, Canadian-Only, And PBS/Canadian-Only Systems From Bortz Sample.

Bortz also excluded from its original sample cable systems that carried only PBS stations, only Canadian stations, and only PBS and Canadian stations as distant signals, effectively according those systems zero weight in its estimates. Arbitrarily excluding these distant signals had a substantial impact on all of the estimates. Tables 2-5 below show the resulting weighted estimate of percentages and the associated standard errors<sup>13</sup> assigned to the various Bortz programming categories for royalty years 2010-2013 when corrected to include (1) only the Form 3 cable systems that retransmitted at least one distant signal during each royalty year in question; and (2) cable systems carrying only PBS, only Canadian, and only PBS and Canadian stations on a distant basis.

**TABLE 2 – 2010 CORRECTED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES**

	<u>2010</u>	<u>Standard Error</u>
<u>Live professional and college team sports</u>	<u>34.1%</u>	<u>1.64</u>
<u>News and public affairs programs</u>	<u>15.5%</u>	<u>0.96</u>
<u>Movies</u>	<u>13.2%</u>	<u>0.65</u>
<u>Syndicated shows, series and specials</u>	<u>13.4%</u>	<u>0.79</u>
<u>PBS and all other programming on non-commercial signals</u>	<u>15.8%</u>	<u>1.57</u>
<u>Devotional and religious programming</u>	<u>3.2%</u>	<u>0.29</u>
<u>All programming on Canadian signals</u>	<u>4.8%</u>	<u>2.50</u>

\*Columns may not add to total due to rounding.

<sup>13</sup> I calculated standard errors for the Horowitz survey results, and have done so for the Bortz survey results to provide a better bases for comparing the two survey results. See Written Direct Testimony of Martin R. Frankel, Ph.D., Docket No. 14-CRB-0010-CD (2010-13), at 7-9, Appendix B (filed December 22, 2016).

**TABLE 3 – 2011 CORRECTED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES**

	<u>2011</u>	<u>Standard Error</u>
<u>Live professional and college team sports</u>	<u>32.2%</u>	<u>1.03</u>
<u>News and public affairs programs</u>	<u>15.9%</u>	<u>0.81</u>
<u>Movies</u>	<u>16.5%</u>	<u>0.68</u>
<u>Syndicated shows, series and specials</u>	<u>15.3%</u>	<u>0.75</u>
<u>PBS and all other programming on non-commercial signals</u>	<u>16.0%</u>	<u>1.73</u>
<u>Devotional and religious programming</u>	<u>3.9%</u>	<u>0.30</u>
<u>All programming on Canadian signals</u>	<u>0.2%</u>	<u>0.07</u>

\*Columns may not add to total due to rounding.

**TABLE 4 – 2012 CORRECTED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES**

	<u>2012</u>	<u>Standard Error</u>
<u>Live professional and college team sports</u>	<u>34.9%</u>	<u>1.44</u>
<u>News and public affairs programs</u>	<u>21.0%</u>	<u>0.83</u>
<u>Movies</u>	<u>14.1%</u>	<u>0.66</u>
<u>Syndicated shows, series and specials</u>	<u>12.3%</u>	<u>0.50</u>
<u>PBS and all other programming on non-commercial signals</u>	<u>11.3%</u>	<u>1.38</u>
<u>Devotional and religious programming</u>	<u>4.4%</u>	<u>0.29</u>
<u>All programming on Canadian signals</u>	<u>2.1%</u>	<u>1.04</u>

\*Columns may not add to total due to rounding.

**TABLE 5 – 2013 CORRECTED WEIGHTED BORTZ SURVEY RESULTS AND ESTIMATES FROM DISTANT SIGNAL PROGRAMMING VALUATION STUDIES**

	<u>2013</u>	<u>Standard Error</u>
<u>Live professional and college team sports</u>	<u>33.6%</u>	<u>1.37</u>
<u>News and public affairs programs</u>	<u>20.1%</u>	<u>0.95</u>
<u>Movies</u>	<u>13.9%</u>	<u>0.70</u>
<u>Syndicated shows, series and specials</u>	<u>10.5%</u>	<u>0.63</u>
<u>PBS and all other programming on non-commercial signals</u>	<u>14.5%</u>	<u>2.10</u>
<u>Devotional and religious programming</u>	<u>4.5%</u>	<u>0.25</u>
<u>All programming on Canadian signals</u>	<u>2.9%</u>	<u>1.29</u>

\*Columns may not add to total due to rounding.

Notably, unlike Bortz, in my sample selection work for the Horowitz survey I utilized the correct sampling frame, which was all Form 3 cable systems carrying at least one distant signal. Also, unlike Bortz, once Horowitz completed its survey of cable system operators, I used the survey responses to provide a weighted estimate of the percent dollar allocation that all cable systems would assign to the eight programming categories discussed in the Horowitz survey, and I did not arbitrarily exclude cable systems carrying only PBS, only Canadian, and only PBS and Canadian stations as distant signals when producing my estimates.<sup>14</sup> Accordingly, the Horowitz survey weighted results and the standard errors I produced associated with those weighted results do not suffer from the same problems that I identified in my analysis of the Bortz survey.

Furthermore, I do not mean to suggest by my replication and suggested corrections to the Bortz survey results that I support the Bortz survey as the basis for allocating the royalties at

<sup>14</sup> See Written Direct Testimony of Martin R. Frankel, Ph.D., Docket No. 14-CRB-0010-CD (2010-13), at 7, Appendix B (filed December 22, 2016).

issue in the case. If the Judges choose to rely on an operator survey in this proceeding, it is my opinion that the Horowitz survey presents a better approach based on some of its improvements to the Bortz survey.

#### **D. CONCLUSION**

~~JSC could have (and still could produce) the unredacted Bortz Survey documents to me directly, since I am an independent professional and not employed by Horowitz or any organization or entity that could be reasonably construed as a competitor to Bortz.<sup>15</sup> To date, however, that has not occurred. Without the production of unredacted documents related to the Bortz survey, I do not find it possible to perform a complete and independent statistical review and analysis of the Bortz survey results. Moreover, no competent statistician could perform an independent analysis of the Bortz sampling and estimation processes without the production of the complete underlying input data described above. Therefore, I reserve my opinion on the statistical validity of the Bortz survey results until JSC produces the unredacted input data to Program Suppliers in this proceeding that would enable me to conduct an independent statistical analysis of the sampling and estimation processes used in the Bortz Report. While I was able to successfully replicate the weighted Bortz survey results and estimates provided in the Bortz Report, as discussed above, the Bortz Report suffers from three key problems; to wit: (1) Bortz used a sample frame which included Form 3 cable systems that did not carry at least one distant signal; (2) Bortz improperly included the royalties attributable to Form 3 systems that did not carry at least one distant signal in producing its weighted estimates; and (3) Bortz disadvantaged cable systems that carried PBS-only, Canadian-only, or PBS- and Canadian-only stations as~~

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<sup>15</sup> ~~I understand that Program Suppliers conveyed this proposal to JSC, and that JSC rejected it, even though JSC has received the equivalent information in discovery from Program Suppliers related to the Horowitz survey.~~

distant signals by arbitrarily excluding these signals when producing its estimates. Correcting for these errors causes a substantial impact in the Bortz survey weighted results, and also impacts the standard errors associated with those results.

Notably, unlike Bortz, the weighting and estimation procedures I performed in connection with the Horowitz survey do not suffer from these same problems, as I used only the universe of Form 3 cable systems that carried at least one distant signal, and I did not exclude cable systems that carried only PBS stations, only Canadian stations, or only PBS and Canadian stations as distant signals.

I thank the Judges for the opportunity to provide testimony in this proceeding, and I hope my analyses are helpful to the Judges.



### **Declaration of Martin R. Frankel**

I declare under penalty of perjury that the foregoing testimony is true and correct, and of my personal knowledge.

| Executed on ~~September \_\_\_\_\_, 2017~~February \_\_\_\_\_, 2018.

---

Martin R. Frankel, Ph.D.

# **EXHIBIT C**

**RESTRICTED**

**SUBJECT TO  
PROTECTIVE ORDER IN  
DOCKET NO. 14-CRB-0010-  
CD (2010-13)**

# **EXHIBIT D**

**RESTRICTED**

**SUBJECT TO  
PROTECTIVE ORDER IN  
DOCKET NO. 14-CRB-0010-  
CD (2010-13)**

# **EXHIBIT E**

**Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

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**In the Matter of**

**Distribution of the**

**2010, 2011, 2012, and 2013  
Cable Royalty Funds**

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**Docket No. 14-CRB-0010-CD (2010-13)**

**REBUTTAL TESTIMONY OF  
SUE ANN R. HAMILTON**

**SEPTEMBER 15, 2017**

**CORRECTED FEBRUARY 12, 2018**

The Bortz survey's failure to provide this volume information is particularly problematic in the case of live team sports. As I explained in my direct testimony, over the years there has been a substantial migration of live team sporting events from over-the-air broadcast signals to national cable networks such as ESPN, cable sports channels owned and operated by different sports teams, leagues, and conferences, other regional sports networks ("RSNs"), and general interest cable networks such as TNT and TBS. *See* Hamilton WDT at 12-13. Although cable operators typically attach a high value to live team sports programming carried by their systems, the vast majority of that programming had migrated to cable networks by the 2010-13 time period, leaving only a very small amount of non-network, live team sports programs available via distant signals.

CSOs typically allocate a substantial amount of their programming budget for the acquisition of bundles containing cable sports networks. In contrast, CSOs spend only a very small fraction of their programming budget on the acquisition of distant signal programming, and a very small portion of that distant signal programming volume (less than 1%) actually contains non-network, live team sports that fall within the JSC category.<sup>2</sup> By failing to provide CSO respondents with information regarding the amount of non-network, live team sports programming actually available on distant signals, and then failing to provide a separate category for other sports programming to eliminate confusion, the Bortz survey was structured in a manner than would invite CSOs to

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<sup>2</sup> I understand that Dr. Jeffrey Gray determined JSC's percentage share of compensable retransmissions on his sample stations to be 0.16% in 2010, 0.18% in 2011, 0.13% in 2012, and 0.22% in 2013, and JSC's share of all distant signal volume to be 0.68% in 2010, 0.71% in 2011, 0.53% in 2012, and 0.75% in 2013. *See* Gray Amended and Corrected WDT at 17.



# **EXHIBIT F**

**Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

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**In the Matter of**

**Distribution of the**

**2010, 2011, 2012, and 2013  
Cable Royalty Funds**

---

**Docket No. 14-CRB-0010-CD (2010-13)**

**REBUTTAL TESTIMONY OF  
SUE ANN R. HAMILTON**

**SEPTEMBER 15, 2017**

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<sup>2</sup> I understand that Dr. Jeffrey Gray determined JSC's percentage share of compensable retransmissions on his sample stations to be 0.16% in 2010, 0.18% in 2011, 0.1~~32~~<sup>32</sup>% in 2012, and 0.2~~24~~<sup>24</sup>% in 2013, and JSC's share of all distant signal volume to be 0.6~~86~~<sup>86</sup>% in 2010, 0.7~~19~~<sup>19</sup>% in 2011, 0.5~~349~~<sup>349</sup>% in 2012, and 0.7~~53~~<sup>53</sup>% in 2013. *See* Gray Amended and Corrected WDT at 1~~76~~<sup>76</sup>.

## **CERTIFICATE OF SERVICE**

I hereby certify that on this 12th day of February, 2018, a copy of the foregoing pleading was provided to each of the parties on the attached service list, either electronically via the Copyright Royalty Judges' eCRB electronic filing system for those parties receiving service through eCRB, or by Federal Express overnight mail.

/s/ *Lucy Holmes Plovnick*  
Lucy Holmes Plovnick

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# Certificate of Service

I hereby certify that on Monday, February 12, 2018 I provided a true and correct copy of the Redacted Public Version--Amended And Corrected Written Rebuttal Statement Regarding Allocation Methodologies Of Program Suppliers to the following:

Devotional Claimants, represented by Arnold P Lutzker served via Electronic Service at arnie@lutzker.com

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Signed: /s/ Lucy H Plovnick